Abstract of the Disclosure

Balloon catheters such as guide catheters can be configured to provide distal occlusion, while still providing sufficient interior lumen space for device delivery. Such catheters can provide a desired level of balloon expansion, yet prevent vessel damage caused by balloon over-expansion. A catheter can include an elongate shaft having a distal region, a proximal region and a lumen extending therebetween. A balloon is inflated to a desired expansion configuration with a desired diameter. Over-inflation of the balloon causes longitudinal expansion instead of increased radial expansion, thus maintaining the diameter of the balloon.

CERTIFICATE UNDER 37 C.F.R. 1.10: The undersigned hereby certified that this paper or papers, as described herein are being deposited in the United States Postal Service, "Express Mail Post Office to Addresse" having an Express Mail mailing label number of: EV 315613215 US, in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 2nd day of March 2004.

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